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ART UNIT	PAPER NUMBER

1714  
*5*  
DATE MAILED:

03/01/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

## Office Action Summary

Application No. 09/582,216	Applicant(s) Fickelsen et al.
Examiner Callie Shosho	Group Art Unit 1714



Responsive to communication(s) filed on Jul 20, 2000

This action is FINAL.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1035 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

### Disposition of Claim

- Claim(s) 1-8 is/are pending in the application.
- Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- Claim(s) \_\_\_\_\_ is/are allowed.
- Claim(s) 1-8 is/are rejected.
- Claim(s) \_\_\_\_\_ is/are objected to.
- Claims \_\_\_\_\_ are subject to restriction or election requirement.

### Application Papers

- See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.
- The specification is objected to by the Examiner.
- The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. § 119

- Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- All  Some\*  None of the CERTIFIED copies of the priority documents have been
- received.
- received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
- received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

- Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

### Attachment(s)

- Notice of References Cited, PTO-892
- Information Disclosure Statement(s), PTO-1449, Paper No(s). 4
- Interview Summary, PTO-413
- Notice of Draftsperson's Patent Drawing Review, PTO-948
- Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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**DETAILED ACTION**

**Use Claims**

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 6-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 6-7 provide for the use of an aqueous composition, but, since the claims do not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Additionally, 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Thus, claims 6-7 are also rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

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In order to overcome this rejection, it is advised that the applicant change the "use of" language in claims 6-7 to "process of using".

**Claim Rejections - 35 USC § 102**

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 5-6, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Columbus et al. (U.S. 4,225,496).

Columbus et al. disclose a composition comprising water, polymer obtained from C<sub>6</sub>-C<sub>14</sub> alkyl (meth)acrylate, and filler. The polymer is present in the form of an aqueous dispersion with solids content of, for instance, 65%, and has glass transition temperature of -30° to 15° C. Given that the filler is present in the composition in an amount of 45-75% and the polymer is present in the composition an amount of 20-40%, it is calculated that there is present, based on the amount of filler and polymer, approximately, 53-79% filler and 21-47% polymer. It is also disclosed that the composition is used to coat various substrates and functions as an adhesive (abstract, col.1, lines 13-14, 28-48, and 66-68, col.2, lines 53-54, col.3, lines 4-6, 34-36, and 42-55, and example 1).

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Although there is no disclosure of the gel content or the number average molecular weight of the soluble fraction of the polymer, given that the polymer is obtained from monomers identical to those presently claimed, and further given that the type and amount of monomer from which the polymer is obtained control the gel content of the polymer, it is clear that the polymer of Columbus et al. inherently possesses identical gel content and number average molecular weight of the soluble fraction of the polymer as presently claimed.

In light of the above, it is clear that Columbus et al. anticipates the present claims.

5. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Schwerzel et al. (U.S. 5,196,468).

Schwerzel et al. disclose an aqueous, solvent-free (i.e. less than 0.5% low boiling solvent), composition comprising polymer obtained from 70-99.5% C<sub>1</sub>-C<sub>24</sub> alkyl (meth)acrylate, and filler. The polymer is present in the form of an aqueous dispersion with solids content of 55-65%, and has glass transition temperature of -60° to 0° C. It is also disclosed that the composition is used to coat substrates and functions as a floor adhesive (col. 2, lines 22-31, col.3, lines 11-15, col.4, lines 41-49 and 55, and col.5, lines 45-65). It is calculated that there is present, for instance, based on the amount of filler and polymer, approximately, 45% (32.1/71.3) polymer and 55% (39.2/71.3) filler (example 1).

Although there is no disclosure of the gel content or the number average molecular weight of the soluble fraction of the polymer, given that the polymer is obtained from monomers

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identical to those presently claimed, and further given that the type and amount of monomer from which the polymer is obtained control the gel content of the polymer, it is clear that the polymer of Schwerzel et al. inherently possesses identical gel content and number average molecular weight of the soluble fraction of the polymer as presently claimed.

In light of the above, it is clear that Schwerzel et al. anticipates the present claims.

**Claim Rejections - 35 USC § 103**

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

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claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Columbus et al. (U.S. 4,225,496).

The disclosure with respect to Columbus et al. in paragraph 4 above is incorporated here by reference.

The difference between Columbus et al. and the present claimed invention is the requirement in the claims of the amount of volatile organic constituent present.

It is noted that the example of Columbus et al. discloses the use of 0.74% volatile constituent, i.e. propylene glycol, which falls outside the amount of volatile organic constituent presently claimed.

However, this is but one preferred embodiment of Columbus et al. Further, the propylene glycol is used to retard drying and impart freeze-thaw stability to the composition. Therefore, it would have been obvious to, and within the skill level of, one of ordinary skill in the art to choose amounts of propylene glycol including those presently claimed, depending on the desired

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drying time and freeze-thaw stability of the composition, and thereby arrive at the claimed invention.

9. Claims 1-4 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawashima et al. (U.S. 4,972,000).

Kawashima et al. disclose an aqueous solvent-free coating composition comprising polymer with THF-insolubles, i.e. gel content, of 20-90% and number average molecular weight of the THF-soluble fractions of 700-20,000 wherein the polymer comprises 0.5-100% alkyl (meth)acrylate such as methyl (meth)acrylate, ethyl (meth)acrylate, and butyl (meth)acrylate. The polymer is present in the form of an aqueous dispersion with solids content of 10-65%. The composition also comprises filler. It is further disclosed that the composition is used as an adhesive, which clearly encompasses flooring adhesives, which coats substrates. It is calculated that the composition contains, for instance, 12.5% (100/800) polymer and 87.5% (700/800) filler based on the amount of filler and polymer present in the composition (col.5, lines 4-5, col.6, lines 55-56 and 59-62, col.17, lines 20-22, 31-32, and 47-54, col.20, lines 11-14, 37, and 57-65, col.22, lines 6-11 and 40, and col.38, line 47).

While Kawashima et al. fail to exemplify the presently claimed composition nor can the composition be "clearly envisaged" from Kawashima et al. as required to meet the standard of anticipation (cf. MPEP 2131.03), nevertheless, in light of the overlap between the claimed composition and that disclosed by Kawashima et al. and absent evidence to the contrary, it is

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urged that it is obvious that it would have been within the bounds of routine experimentation, as well as within the skill level of one of ordinary skill in the art, to use a composition which is both disclosed by Kawashima et al. and encompassed within the scope of the present claims, and thereby arrive at the claimed invention.

10. Claims 1-2, 4 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuruoka et al. (U.S. 5,637,644).

Tsuruoka et al. disclose an aqueous coating composition, free of solvent, comprising polymer with gel content of 10-98% wherein the polymer comprises 33-79.5% C<sub>1</sub>-C<sub>4</sub> alkyl (meth)acrylate. The composition also comprises filler. It is further disclosed that the composition is used as a flooring adhesive which coats substrates (col.2, lines 15-17, col.3, lines 40-43, col.14, lines 4-10, col.9, lines 16-21, col.10, lines 20-25 and 37-38, col.11, line 61-col.12, line 21, and col.14, lines 19-25). It is calculated that the aqueous composition contains, for instance, 50 (100/200)-87.5% (700/800) filler and 12.5-50% polymer based on the amount of filler and polymer present (col.11, lines 61-65). Although there is no disclosure of the number average molecular weight of the soluble fraction of the polymer, given that the polymer is the same as presently claimed and possesses the same gel content as presently claimed, it is clear that the number average molecular weight of the soluble fraction of the polymer would intrinsically be the same as presently claimed.

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While Tsuruoka et al. fail to exemplify the presently claimed composition nor can the composition be "clearly envisaged" from Tsuruoka et al. as required to meet the standard of anticipation (cf. MPEP 2131.03), nevertheless, in light of the overlap between the claimed composition and that disclosed by Tsuruoka et al. and absent evidence to the contrary, it is urged that it is obvious that it would have been within the bounds of routine experimentation, as well as within the skill level of one of ordinary skill in the art, to use a composition which is both disclosed by Tsuruoka et al. and encompassed within the scope of the present claims, and thereby arrive at the claimed invention.

11. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lofgren (U.S. 4,654,388) in view of Su (U.S. 6,124,417).

Lofgren et al. disclose an aqueous, solvent-free, flooring adhesive composition comprising polymer obtained from alkyl (meth)acrylates such as butyl acrylate. The polymer is present in the form of an aqueous dispersion with solids content of 50-75%. The composition also comprises filler. It is disclosed that the composition contains 20-50 parts resin and 5-50 parts filler, from which it is calculated that the composition contains approximately, based on amount of filler and polymer, 9-71% filler and 28-98% polymer (col.2, lines 9-17 and 25-33 and col.3, lines 6-15 and 39-40).

The difference between Lofgren et al. and the present claimed invention is the requirement in the claims of specific type of polymer.

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Su which is drawn to adhesive composition, disclose the use of a polymer obtained from 40-75% alkyl methacrylate and 5-15% methyl methacrylate which has a glass transition temperature of -20<sup>0</sup> C to 0<sup>0</sup> C and a gel content of, for instance, 16% (col.2, lines 18-20, col.3, lines 10-21, and col.6, lines 30-41). Although there is no disclosure of the number average molecular weight of the soluble fraction of the polymer, given that the polymer is the same as presently claimed and possesses the same gel content as presently claimed, it is clear that the number average molecular weight of the soluble fraction of the polymer would intrinsically be the same as presently claimed.

The motivation for using such polymer is as a pressure sensitive adhesive which is non-tacky when dry and tacky when wet(col.2, line 66-col.3, line 4).

In light of the motivation for using specific polymer disclosed by Su as described above, it therefore would have been obvious to one of ordinary skill in the art to use such a polymer in the aqueous composition of Lofgren et al. in order to control the tackiness of the composition, and thereby arrive at the claimed invention.

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Plamthottam et al. (U.S. 5,639,811) disclose a pressure sensitive adhesive comprising polymer obtained from 55-85% alkyl (meth)acrylate which has less than 40% gel content, however, there is no disclosure that the adhesive composition is aqueous.

Yasuda et al. (U.S. 4,966,829) disclose a toner composition comprising polymers obtained from monomers including alkyl (meth)acrylate wherein the polymer has gel content of 10-60% and molecular weight of the soluble fraction of less than 10,000, however, the toner composition is not aqueous as presently claimed.

Chang (U.S. 4,626,567) disclose a sealant composition comprising acrylic latex, however, the use of filler is optional, and further, there is no disclosure of the gel content or the number average molecular weight of the soluble fraction of the polymer.

WO 95/21884 (pending translation) disclose a composition comprising polymer and filler.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie Shosho whose telephone number is (703) 305-0208. The examiner can normally be reached on Mondays-Thursdays from 7:00 am to 4:30 pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (703) 306-2777. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3599.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Q.S.

Callie Shosho

2/27/01

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